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R E M A R K S

Reconsideration of the present application in view of the following remarks is respectfully requested. Twenty-three claims are pending in the application: Claims 1 through 23.

35 U.S.C. § 102

Claims 1-23 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,426,683 (*Gu et al.*).

M.P.E.P Section 2131 states that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference."

*Gu et al.* teaches an integrated filter circuit having an input and output parasitic shunt impedance. Input and output electrical components are coupled to the input and output terminals of the integrated filter circuit to reduce the input and output parasitic shunt impedance (See Abstract). The input and output electrical components 65 and 67 are connected in parallel with the input and output parasitic shunt capacitances 60 and 64, respectively, so as to reduce the input and output parasitic shunt capacitances (See *Gu et al.*, Column 5, lines 7-10). As described in the background of *Gu et al.*, as circuit design moves to highly integrated circuits, parasitic shunt capacitance adversely affects the matching circuit performance. This is a relatively new problem in modern integrated filter design, and the prior art approach, which is to increase spacing between filter elements and to use ground planes, is not a viable solution (See *Gu et al.*, Column 1, lines 28-37). The parasitic

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capacitance is caused by coupling that is internal to the integrated filter circuit design and a function of the layout of the integrated filter. The parasitic capacitance referred to in Gu et al. has no relation to circuitry outside of the integrated filter.

Furthermore, at the time of designing the integrated circuit filter described by Gu et al., the manufacturer has no way of knowing what the external electromagnetic coupling will be as it will vary from application to application. Thus, the integral electrical components 65 and 67 that are built into the integrated filter are designed to cancel only the parasitic capacitances internal to the integrated filter and do not cancel external electromagnetic coupling.

In contrast to Gu et al., Applicant's independent claim 1 specifically recites "a surface acoustic wave device having an output and further having external electromagnetic coupling and acoustic coupling; and a cancellation network coupled to the surface acoustic wave device to reduce external electromagnetic feed through; wherein the cancellation network reduces the amount of external electromagnetic feed through at the output of the surface acoustic wave device." The external electromagnetic feed through is not equivalent to the internal parasitic capacitances of the integrated filter of Gu et al. As described in the background of Applicant's specification, electromagnetic feed through for a Surface Acoustic Wave filter is a combination of internal and external feed through. As described further in Applicant's background, manufacturers can attempt to reduce the internal EM coupling during design of the device. Gu et al. provides a solution to the problem of internal coupling not

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specifically mentioned in the background. However, as further stated in the background, "while a manufacturer may attempt to reduce internal EM coupling the manufacturer of the SAW filter has no control over the external EM coupling that may take place, as this will vary from application to application."

Turning specifically to the rejection, it appears from the office action that Applicant's claimed external electromagnetic coupling has been equated to the inductive coil (58) shown in Fig. 5 of Gu et al. Fig. 5 illustrates a schematic diagram of an integrated filter circuit implemented in a multilayer ceramic integrated circuit. The inductive coil is an inductive coil that is internal to the filter design and in no way does it represent external electromagnetic coupling as asserted in the present action.

It further appears that Gu et al.'s input and output devices (65, 67) have been equated to Applicant's cancellation network that reduces the amount of external electromagnetic feed through at the output of the surface acoustic wave device. However, Gu et al. clearly describes the input and output electrical components 65 and 67 connected in parallel with the input and output parasitic shunt capacitances 60 and 64, respectively, so as to reduce the input and output parasitic shunt capacitances. As described above, the input and output parasitic shunt capacitances of Gu et al. are completely internal to the integrated filter. Therefore, components 65 and 67 reduce internal shunt capacitances within the multilayer board and are not a cancellation network that "reduces the amount of external electromagnetic feed through at the output of the surface acoustic wave device," such as is claimed by Applicants. Thus,

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Gu et al. does not teach Applicant's claimed "cancellation network coupled to the surface acoustic wave device to reduce external electromagnetic feed through, wherein the cancellation network reduces the amount of external electromagnetic feed through at the output of the surface acoustic wave device."

Therefore, Gu et al. does not teach each and every element as set forth in claim 1 as required by M.P.E.P. section 2131. Thus, Applicant respectfully submits that independent claim 1 is not anticipated by Gu et al. Additionally, independent claims 8 and 16 both recite reducing external electromagnetic feed through at the output of a surface acoustic wave device and are thus also not anticipated by Gu et al.

Therefore, Applicant respectfully submits that independent claims 1, 8 and 16 are in condition for allowance and the rejection is overcome. Further, it is respectfully submitted that all of the dependent claims are also in condition for allowance at least because of the dependency upon an allowable independent claim. In addition, these claims introduce additional content that, particularly when viewed in context with the claim or claims from which they depend, constitutes additional incremental patentable subject matter. For all these reasons Applicant respectfully submits that these dependent claims are in suitable form to support allowance.

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C O N C L U S I O N

In view of the above, Applicant submits that the pending claims are in condition for allowance, and prompt and favorable action is earnestly solicited. Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain any outstanding issues that require adverse action, it is respectfully requested that the Examiner telephone Martin R. Bader at (858) 552-1311 so that such issues may be resolved as expeditiously as possible.

Respectfully submitted,



Martin R. Bader  
Reg. No. 54,736

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Address all correspondence to:

FITCH, EVEN, TABIN & FLANNERY  
120 South LaSalle Street, Ste. 1600  
Chicago, IL 60603  
(858) 552-1311